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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,124	05/31/2006	Philippe Tardieu	50304/126001	2477

21559 7590 06/19/2009

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EXAMINER	
EIDE, HEIDI MARIE	
ART UNIT	PAPER NUMBER
3732	

NOTIFICATION DATE	DELIVERY MODE
06/19/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentadministrator@clarkelbing.com

Office Action Summary	Application No.	Applicant(s)	
	10/596,124	TARDIEU, PHILIPPE	
	Examiner	Art Unit	
	HEIDI M. EIDE	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-53* is/are pending in the application.

4a) Of the above claim(s) *54-56* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 April 2009* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/20/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings were received on April 20, 2009. These drawings are not accepted. The drawings contain new matter not presented in the originally filed specification. Fig. 1D contains a prosthesis that was not present in the original drawings or described in a way of the original specification to produce the prosthesis illustrated in fig. 1D. Further new fig. 2C has labeled portion 22 as an abutment in which the original filed drawing and specification do not contain support for. Further fig. 2E does not contain reference numbers, but a description of the connection. New drawings are required in order to overcome the issues discussed above.

Specification

The abstract of the disclosure is objected to because the brief description of the drawings do not provide an individual description of each of the drawing 1A-1D, 2A-E... Correction is required. See MPEP § 608.01(b).

The amendment filed April 20, 2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the abutment part 22.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 44-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As to claims 44-51, the applicant positively claims the retaining screw, impression coping and burn-out cylinder in each of the independent claims. Applicant then claims each of the claimed elements for use with a non-claimed element. Further in each of these claims, the applicant claims limitations of the claimed element in combination with the non-claimed element. It is unclear in each of these claims what the applicant is really trying to claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 30-32 and 37-39 rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Gordon 5,733,122.

Forsmalm teaches a combination of a dedicated dental implant, a prosthesis comprising an anchorage part and a retaining screw 4, wherein the anchorage part of the prosthesis comprises a hole for the retaining screw, characterized in that the diameter of the neck of the retaining screw is smaller than the diameter of the hold in the anchorage part of the prosthesis as illustrated in fig. 2a. Forsmalm further teaches

the connection between the implant anchorage part of the prosthesis allow, upon fixing the prosthesis to the dental implant with the retaining screw, compensation for lateral misalignments between the center of the anchorage part of the prosthesis and the center of the dental implant by way of lateral movements of the prosthesis on the dental implant (col. 2, ll. 50-65). Forsmalm teaches the diameter of the neck of the retaining screw is smaller with respect to the diameter of the hole in the anchorage part of the prosthesis however does not specifically teach the lateral movement of the prosthesis on the implant is about 0.4 to about 1.4 mm and the diameter of the neck of the retaining screw is 0.4 to 1.2 mm smaller with respect to the diameter of the hole in the anchorage part of the prosthesis, however it would have been obvious to one having ordinary skill in the art at the time of the invention to provide greater lateral movement to allow for greater degree of correction. Forsmalm further teaches the anchorage part is an integral part of the prosthesis and the implant comprises a fixture head as illustrated in fig. 2b. Forsmalm does not teach the connection between the implant and the anchorage part of the prosthesis comprises a flat to flat connection, wherein the implant is a single structure and said flat to flat connection is between the proximal surface of the fixture head of the implant and the anchorage part of the prosthesis and an abutment. Gordon teaches the connection between the implant and the anchorage part of the prosthesis comprises a flat to flat connection, the anchorage part of the prosthesis comprises a flat to flat connection and wherein the implant is a single structure and said flat to flat connection is between the proximal surface of the fixture head of the implant and the anchorage part of the prosthesis and an abutment as

illustrated in fig. 17. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Gordon as a matter of obvious design choice since the applicant teaches on page 4 in the last paragraph interlocking features, such as those taught by Forsmalm as an alternative to a flat to flat connection.

Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Gordon 5,733,122 as applied to claim 30 above, and further in view of Kumar et al. 6,447,295 (Kumar). Forsmalm in view of Gordon does not teach the combination wherein the diameter of the neck of the retaining screw is smaller than its threaded shaft and there is no tolerance between the threaded shaft of the retaining screw and the hole in the anchorage part of the prosthesis. Kumar teaches wherein the diameter of the neck of the retaining screw is smaller than its threaded shaft and there is no tolerance between the threaded shaft of the retaining screw and the hole in the anchorage part of the prosthesis as illustrated in fig. 2. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Gordon further in view of in order to fasten the prosthesis to the implant as taught by Kumar (col. 7, II. 34-36) and since the modification involves a in size and it has been held that a change in the size involve routine skill in that art (*In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) MPEP 2144.04 IV A).

Claims 35 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm). Forsmalm teaches a combination of a dedicated dental implant or implant assembly, a prosthesis comprising an anchorage part and a retaining screw, wherein the anchorage part of the prosthesis comprises a hole for the retaining screw, characterized that the diameter of the neck of the retaining screw is smaller than the diameter of the hold in the anchorage part of the prosthesis wherein the interface of the implant or implant assembly with the anchorage part of the prosthesis is characterized by interlocking features which ensure a tolerance interlock, allowing, upon fixing of the prosthesis to the implant or implant assembly with the retaining screw compensation for lateral misalignments. Forsmalm does not specially teach compensation for lateral misalignments of about 0.4 to about 1.4 mm; however, however it would have been obvious to one having ordinary skill in the art at the time of the invention to provide greater lateral movement to allow for greater degree of correction (col. 2, ll. 50-65). As to claim 48, Forsmalm teaches an impression coping for taking an impression of a dental implant or implant assembly comprising at its proximal end a flat surface comprising an anchorage part as illustrated in fig. 2b. The impression coping taught by Forsmalm is capable of interfacing with an implant oar implant assembly to form a flat to flat interface.

Claims 36 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Gordon 5,733,122 as applied to claim 30 above, and further in view of Lazzara et al. 4,988,297 (Lazzara). Forsmalm in

view of Gordon teach the invention as discussed above, however, does not teach the anchorage part is a separate cylindrical component that can be incorporated into a prosthesis and an impression coping with a flat surface for a flat to flat connection to the implant and an implant replica comprising a flat proximal surface for a flat to flat connection with the anchorage part of the prosthesis or impression coping. Lazzara teaches the anchorage part 18 is a separate cylindrical component that can be incorporated into a prosthesis (col. 3, ll. 43-44, 57-63) and an impression coping 56 with a proximal surface that is flat capable of producing a flat to flat connection to the implant and an implant replica 70 comprising a proximal end surface that is flat that is capable of a flat to flat connection with an impression coping as illustrated in fig. 4 (col. 4, ll. 60-63).. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Gordon further in view of Lazzara since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art (*In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961) MPEP 2144.04 V C) and as a matter of obvious design choice since the applicant teaches on page 4 in the last paragraph interlocking features, such as those taught by Forsmalm as an alternative to a flat to flat connection.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Gordon 5,733,122 as applied to claim 30 above, and further in view of Gahlert 2005/0106534. Forsmalm in view of Gordon does not teach the combination wherein the implant has an external surface comprising

a distal part which is treated in interface with bone and a proximal part which is untreated, characterized in that the proximal part has a length of between 2 and 6 mm. Gahlert teaches the implant has an external surface comprising a distal part which is treated in interface with bone and a proximal part which is untreated (par. 15). Forsmalm in view of Gordon further in view of Gahlert does not teach the proximal part has a length of between 2 and 6 mm. However the applicant discloses on page 13, line 31 of the specification that the size and length of the implant does not matter, therefore the length of the implant would have been an obvious matter of design choice. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Gordon further in view of Gahlert in order to facilitate ossification as taught by Gahlert (par. 15)

Claims 41 and 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Gordon 5,733,122 as applied to claim 30 above, and further in view of Bori 4,872 840. Forsmalm in view of Gordon teach the invention as discussed above, however, does not specifically teach the fixture head of the implant at the interface of the implant with the prosthesis has a flat surface, further comprising in said flat surface one or more dedicated feature to allow easy extraction of the implant after placement. Bori teaches the fixture head of the implant at the interface of the implant with the prosthesis has a flat surface, further comprising in said flat surface one or more dedicated features is a number of small intrusions 42 of the said e of the head of the fixture as illustrated in fig. 3. It would have been obvious to

one having ordinary skill in the art at the time of the invention to modify Forsmalm in view of Gordon further in view of Bori in order to provide increased stabilization of the implant during the healing period as taught by Bori (col. 15, ll. 1-2).

Claims 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsmalm et al. 5,584,694 (Forsmalm) in view of Kumar et al. 6,447,295 (Kumar). Forsmalm further teaches a retaining screw 11 for fixing a prosthesis to a dental implant or implant assembly having at their interface a tolerance interlock and the threaded shaft fits into a threaded hold in the implant or implant assembly as illustrated in fig. 2b. Forsmalm does not specifically teach that the diameter of the neck of the retaining screw is about 0.4 to 1.2 m smaller with respect to the diameter of a hold in an anchorage part of the prostheses, however, however it would have been obvious to one having ordinary skill in the art at the time of the invention to provide greater lateral movement to allow for greater degree of correction (col. 2, ll. 50-65). Forsmalm does not teach diameter of its neck is smaller than its threaded shaft, the diameter of the threaded shaft of the retaining screw is equal to the diameter of the hole in the anchorage part of the prosthesis and the retaining screw has a cylindrical head with a conical opening inward to guide a screwdriver into position for screwing. Kumar teaches the diameter of the neck is smaller than it threaded shaft, the diameter of the threaded shaft of the retaining screw is equal to the diameter of the hole in the anchorage part of the prosthesis and a cylindrical head 60 with a conical opening inwards 74 as illustrated in fig. 2. It would have been obvious to one having ordinary

skill in the art at the time of the invention to modify Forsmalm in view of Kumar in order to fasten the prosthesis to the implant as taught by Kumar (col. 7, II. 34-36) and since the modification involves a in size and it has been held that a change in the size involve routine skill in that art (*In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) MPEP 2144.04 IV A).

Claims 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rassoli et al. 5,662,473 (Rassoli). Rassoli teaches a burn-out cylinder 11 comprising a proximal end which comprises a flat surface as illustrated in fig. 5 (col. 2, II. 59-61). The proximal end is capable of connection to an implant replica comprising a flat surfaced proximal end for connection with the proximal flat surface of an anchorage part of a prostheses or impression coping forming a flat to flat connection, the cylinder further comprises a tapered collar as illustrated in fig. 5 and the cylinder further comprises an internal shaft comprising two cylindrical parts as illustrated in fig. 7.

Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rassoli et al. 5,662,473 (Rassoli) as applied to claim 49 above, and further in view of Gordon 5,733,122. Rassoli teaches the invention as discussed above, however, does not teach the diameter of the proximal of the two cylindrical parts is smaller than that of the distal part. Gordon teaches, as illustrated in fig. 17, the diameter of the proximal of the two cylindrical parts is smaller than that of the distal part. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Rassoli in view of

Gordon since the court held that the configuration of the claimed cylinder was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed cylinder was significant (In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) MPEP 2144.04 IV B).

Response to Arguments

Applicant's arguments filed April 20, 2009 have been fully considered but they are not persuasive. Applicant argues the method of Forsmalm is different than the claimed method, however, the applicant is claming the apparatus and not the method, therefore these arguments are moot. Applicant argues that the impression top of the prior art is not a dental prosthesis. The applicant teaches the dental prosthesis is a separate cylinder when describing fig. 1 and the impression top of the prior art is a separate cylinder, therefore the claimed limitation is met. Applicant further argues that the screw taught by Forsmalm is not a retaining screw, however, the screw illustrated by Forsmalm meets the limitations a retaining screw as taught by the applicant on page 7 in that the retaining screw can be used to fix a prosthesis or impression coping to an implant, therefore the screw taught by Forsmalm meets the claimed limitation of a retaining screw. Applicant further argues that Forsmalm teaches a certain play is desirable between the gold cylinder and distance member, but no details are provided for how this is accomplished and that the degree of tolerance is less than that claimed in the current application. Regarding the degree of tolerance is less than that claimed in the current application, these parameters are deemed matters of design choice well

within the skill of the ordinary artisan obtained through routine experimentation in determining optimum results. Further, as illustrated in figs. 2a-2c, the way in which the play between the gold cylinder and distance member is clearly illustrated. Applicant further argues that the goal of Forsmalm is to reduce errors that can occur during the impression process and that the skilled artisan would have had no reason or motivation to increase the degree of lateral movement available during the placement process, however, col. 2, ll. 9-11 Forsmalm teaches compensating for errors in the fitting of the finished dental bridge in the mouth and further claims in claims 1 and 5 that finished dental prosthesis is anchored via a cylinder that has an adapted play in relation to the distance member, therefore a skilled atria would have motivation to increase the degree of lateral movement in order to allow for a greater degree of correction. Regarding claim 48, applicant argues that the impression coping does not have a flat to flat interface with the implant, however, applicant is only positively claiming the impression coping and does not claim the dental implant or implant assembly. The impression coping of Forsmalm has a flat surface of its proximal end as discussed above. The flat surface is capable of forming a flat to flat interface with a dental implant. Further regarding applicant's arguments directed to claim 49, the applicant is claiming the cylinder is for connection to an implant replica and not positively claiming the implant replica. Therefore Rassoli teaches a cylinder comprising a proximal end which comprises a flat surface which is capable of a flat to flat interface with an implant replica.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. EIDE whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Eide
Examiner
Art Unit 3732

/John J Wilson/
Primary Examiner
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/Heidi M Eide/
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6/16/2009